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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1 of 2

**Complete if Known**

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|------------------------|-----------------------------|
| Application Number     | Not Yet Assigned 10/617,620 |
| Filing Date            | July 11, 2003               |
| First Named Inventor   | Keith D. Trott              |
| Art Unit               | Not Yet Assigned 2828       |
| Examiner Name          | Not Yet Assigned 11/02/03   |
| Attorney Docket Number | RTN-141PUS                  |

| U. S. PATENT DOCUMENTS |                       |  |                                |   |   |
|------------------------|-----------------------|--|--------------------------------|---|---|
| Examiner Initials*     | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|                        |                       | Number-Kind Code <sup>2</sup> (if known) |                                |   |   |
| <i>DM</i>              |                       | US- 3,836,976                            | 09/17/1974                     | Monser et al.                                   |   |
| <i>DM</i>              |                       | US- 4,500,887                            | 02/19/1985                     | Nester  |   |
| <i>DM</i>              |                       | US- 4,973,925                            | 11/27/1990                     | Nusair et al.                                   |   |
| <i>DM</i>              |                       | US- 5,070,340                            | 12/03/1991                     | Diaz  |   |
| <i>DM</i>              |                       | US- 5,185,611                            | 02/09/1993                     | Bitter, Jr.                                     |   |
| <i>DM</i>              |                       | US- 5,208,602                            | 05/04/1993                     | Monser et al.                                   |   |
| <i>DM</i>              |                       | US- 5,248,987                            | 09/28/1993                     | Lee   |   |
| <i>DM</i>              |                       | US- 5,428,364                            | 06/27/1995                     | Lee et al.                                      |   |
| <i>DM</i>              |                       | US- 5,786,792                            | 07/28/1998                     | Bellus et al.                                   |   |
| <i>DM</i>              |                       | US- 5,949,382                            | 09/07/1999                     | Quan  |   |
| <i>DM</i>              |                       | US- 5,977,911                            | 11/02/1999                     | Green et al.                                    |   |
| <i>DM</i>              |                       | US- 6,271,799                            | 08/07/2001                     | Rief et al.                                     |   |
| <i>DM</i>              |                       | US- 6,292,153                            | 09/18/2001                     | Aiello et al.                                   |   |
| <i>DM</i>              |                       | US- 6,300,906                            | 10/09/2001                     | Rawnick et al.                                  |   |
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| Examiner Initials <sup>*</sup> | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear | T <sup>6</sup> |
|                                |                       | Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                |   |   |                |
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Examiner Signature

*M. W. Mor*

Date Considered

3/8/2005

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

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|   |   |    |   | Application Number       | Not Yet Assigned 10/17/2000 |
|   |   |    |   | Filing Date              | July 11, 2003               |
|   |   |    |   | First Named Inventor     | Keith D. Trott              |
|   |   |    |   | Art Unit                 | Not Yet Assigned 2828       |
|   |   |    |   | Examiner Name            | Not Yet Assigned Wimer      |
| Sheet   | 2 | of | 2 | Attorney Docket Number   | RTN-141PUS                  |

| OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS |                       |   |                |
|---|-----------------------|---|----------------|
| Examiner Initials*                              | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
| <i>Wimer</i>                                    |                       | HERSCOVICI, "Extremely Wide-Band Antennas For Wireless Communication;" Presented at 1998 Wireless Symposium; Cushcraft Corp.; two pages   |                |
| <i>Wimer</i>                                    |                       | SCHAUBERT et al.; "Wideband Vivaldi Arrays For Large Aperture Antennas;" A.B. Smolders and M.P. van Haarlem; Perspectives on Radio Astronomy - Technologies for Large Antenna Arrays; Netherlands Foundation for Research in Astronomy 1999; pages 50-57        |                |
| <i>Wimer</i>                                    |                       | SMOLDERS et al.; "Wide-Band Antenna Element With Integrated Balun;" Presented at the IEEE APS Int. Symposium Atlanta USA 1998; four pages   |                |
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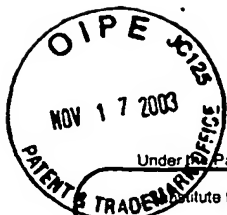
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| Examiner Signature | <i>M. Wimer</i> | Date Considered | 3/8/2005 |
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| Art Unit               | -2824 2028             |
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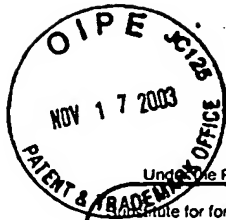
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| Examiner Signature | <i>M. Miner</i> | Date Considered | 3/8/2005 |
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| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary)   |   | Applicant Number       | 10/617,620             |
|   |   | Filing Date            | July 11, 2003          |
|   |   | First Named Inventor   | Keith D. Trott         |
|   |   | Art Unit               | 2821 2828              |
|   |   | Examiner Name          | Wimer Not Yet Assigned |
|   |   | Attorney Docket Number | RTN-141PUS             |
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|--------------------|-----------------------|---|----------------|
|                    |                       | DANIEL H. SCHAUBERT, TAN-HUAT CHIO, Wideband Vivaldi Arrays for Large Aperture Antennas, 1999, PP 59-57, Perspectives on Radio Astronomy - Technologies for Large Antenna Arrays, Netherlands Foundation for Research in Astronomy - 1999.                      |                |
|                    |                       | KEITH TROTT, BOB CUMMINGS, RONNI CAVENER, MARK DELUCA, JOE BIONDI, AND TOM SIKINA, Wideband Phased Array Radiator, pp. 1-4, 2003 IEEE Phased Array Conference Proceedings, held in Boston, MA, October 14-17, 2003.   |                |
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| Application Number     | 10/617,620       |
| Filing Date            | July 11, 2003    |
| First Named Inventor   | Keith D. Trott   |
| Art Unit               | 2821 2828        |
| Examiner Name          | Not Yet Assigned |
| Attorney Docket Number | RTN-141PUS       |

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**U. S. PATENT DOCUMENTS**

| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|-----------------------|--------------------------|--|--------------------------------|--|---|
|                       |                          | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| <i>JK</i>             |                          | US- 6,208,308                            | 03/27/2001                     | Lemons   |   |
| <i>JK</i>             |                          | US- 5,428,364                            | 06/27/1995                     | Lee et al.   |   |
| <i>JK</i>             |                          | US- 4,500,887                            | 02/19/1985                     | Nester   |   |
| <i>JK</i>             |                          | US- 6,518,931                            | 02/11/2003                     | Sievenpiper  |   |
| <i>JK</i>             |                          | US- 5,519,408                            | 05/21/1996                     | Schnetzer  |   |
|                       |                          | US-                                      |                                |  |   |
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**FOREIGN PATENT DOCUMENTS**

| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Foreign Patent Document   | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | † <sup>6</sup> |
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|                       |                          | Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                   |  |   |                |
| <i>JK</i>             |                          | 0 634 808 A1  | 01/18/1995                        | Gary G. Sanford                                    |   |                |
| <i>JK</i>             |                          | DE 3215323 A1   | 01/23/1982                        | Michael Buschoff                                   |   |                |
| <i>JK</i>             |                          | EP 1 006 609 A2   | 11/30/1998                        | Ronald A. Marino                                   |   |                |
| <i>JK</i>             |                          | EP 1 006 609 A3   | 11/30/1998                        | Ronald A. Marino                                   |   |                |
|                       |                          |   |                                   |  |   |                |
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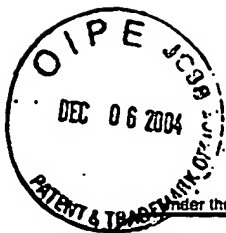
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Signature*M. Winer*Date  
Considered

3/8/2005

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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|                        |                      |
|------------------------|----------------------|
| Application Number     | 10/617,620           |
| Filing Date            | July 11, 2003        |
| First Named Inventor   | Keith D. Trott       |
| Art Unit               | <del>2821</del> 2828 |
| Examiner Name          | Not Yet Assigned     |
| Attorney Docket Number | RTN-141PUS           |

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|-----------------------|--------------------------|---|----------------|
| Jm                    |                          | PCT/US2004/016336 International Search Report dated October 5, 2004   |                |
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| Examiner<br>Signature | M. Winer | Date<br>Considered | 3/8/2005 |
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| Application Number     | 10/617,620                          |
| Filing Date            | July 11, 2003                       |
| First Named Inventor   | Keith D. Trott                      |
| Art Unit               | 2822 2828                           |
| Examiner Name          | <del>Winkler</del> Not Yet Assigned |
| Attorney Docket Number | RTN-141PUS                          |

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**Examiner  
Signature**

M. Wimer

Date \_\_\_\_\_

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| Application Number     | 10/617,620             |
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| First Named Inventor   | Keith D. Trott         |
| Art Unit               | —2821 2828             |
| Examiner Name          | Wimer Not Yet Assigned |
| Attorney Docket Number | RTN-141PUS             |

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|--------------------|-----------------------|---|----------------|
| <i>Wimer</i>       |                       | DeLuca; "A Broadband Dual Polarized Slotline Feed;" Engineering Project ECE 688; University of Massachusetts/Raytheon; December 16, 2002; 1-37  |                |
| <i>Wimer</i>       |                       | DeLuca; "A Broadband Dual Polarized Slotline Feed;" Slide Presentation; 21st Annual Raytheon/UMASS Colloquium; November 13, 2002; pages 1-22  |                |
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| Examiner Signature | <i>M. Wimer</i> | Date Considered | 3/8/2005 |
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